



**HARVARD SCHOOL OF PUBLIC HEALTH**

**Radiological Emergency Planning**

**August 8, 2007**

# **YUCCA MOUNTAIN**

**Clark County**

**Program and Project Background**

**Irene Navis, Planning Manager**



# Course Objectives

- **To provide background on the Yucca Mountain Project**
- **To provide an overview of Clark County's Yucca Mountain Oversight Program**
- **To demonstrate a suggested methodology for assessing public safety impacts as it relates to radiological emergency planning**
- **To demonstrate the components of a successful public outreach program**

# **Yucca Mountain Project Overview**

- **Yucca Mountain is a ridge of volcanic rock located on federal land in Nye County, Nevada.**
- **Yucca Mountain was singled out in 1987 as the only site to be studied for a proposed repository of 70,000 metric tons of high level radioactive waste and spent nuclear fuel.**



# **Yucca Mountain Project Overview**

- **The Nuclear Waste Policy Act (1982, amended in 1987 and 1992) is the enabling legislation for this project.**
- **Congress voted that the site was suitable to move forward to licensing in 2002.**
- **A license application is scheduled to be submitted in 2008.**
- **The repository is not scheduled to open until at least 2017.**

# Background

- **Clark County Commissioners have been opposed to this project since 1985.**
- **Clark County, as an “affected unit of local government” receives an annual appropriation from Congress to study and comment on the DOE’s program.**

# Clark County Snapshot

- Home of the world-famous “Las Vegas Strip”
- 19 of the world’s 20 largest hotels
- 8,000 square miles in size (roughly the size of New Jersey)
- Fastest growing county in USA
- 5,000 new residents per month since 1992
- 45 million annual visitors







# **Clark County's Role**

- **Study and comment on the scientific and technical aspects of the project.**
- **Study and comment on transportation plans and documents.**
- **Analyze, monitor, and report on potential impacts.**
- **Public involvement and outreach.**
- **Coordinate efforts with cities and tribes.**



# Our Focus

- **Geology**
- **Hydrology**
- **Volcanoes**
- **Earthquakes**
- **Nellis AFB**
- **Worker safety**
- **Species protection**
- **Transportation**
- **Public health and safety**
- **Property values**
- **Impacts to government service**
- **Homeland security**
- **Environmental justice**

# Yucca Mountain

## Potential Transportation Routes



# Results

- Credible, effective program
- Leveraged resources
- Continually updated information
- Enhanced coordination and cooperation with all stakeholders
- Joint efforts with State, cities, tribes
- Community recognition





HARVARD SCHOOL OF PUBLIC HEALTH

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**Clark County  
Impact Assessment**

**Babs McGehee  
Senior Management Analyst**



# Overview

- **Impact Assessment**
- **Public Safety**
- **Non-Public Safety**
- **State Laws**
- **Monitoring/Community Indicators Program**
- **Urban Community Survey**
- **Rural Community Visioning**

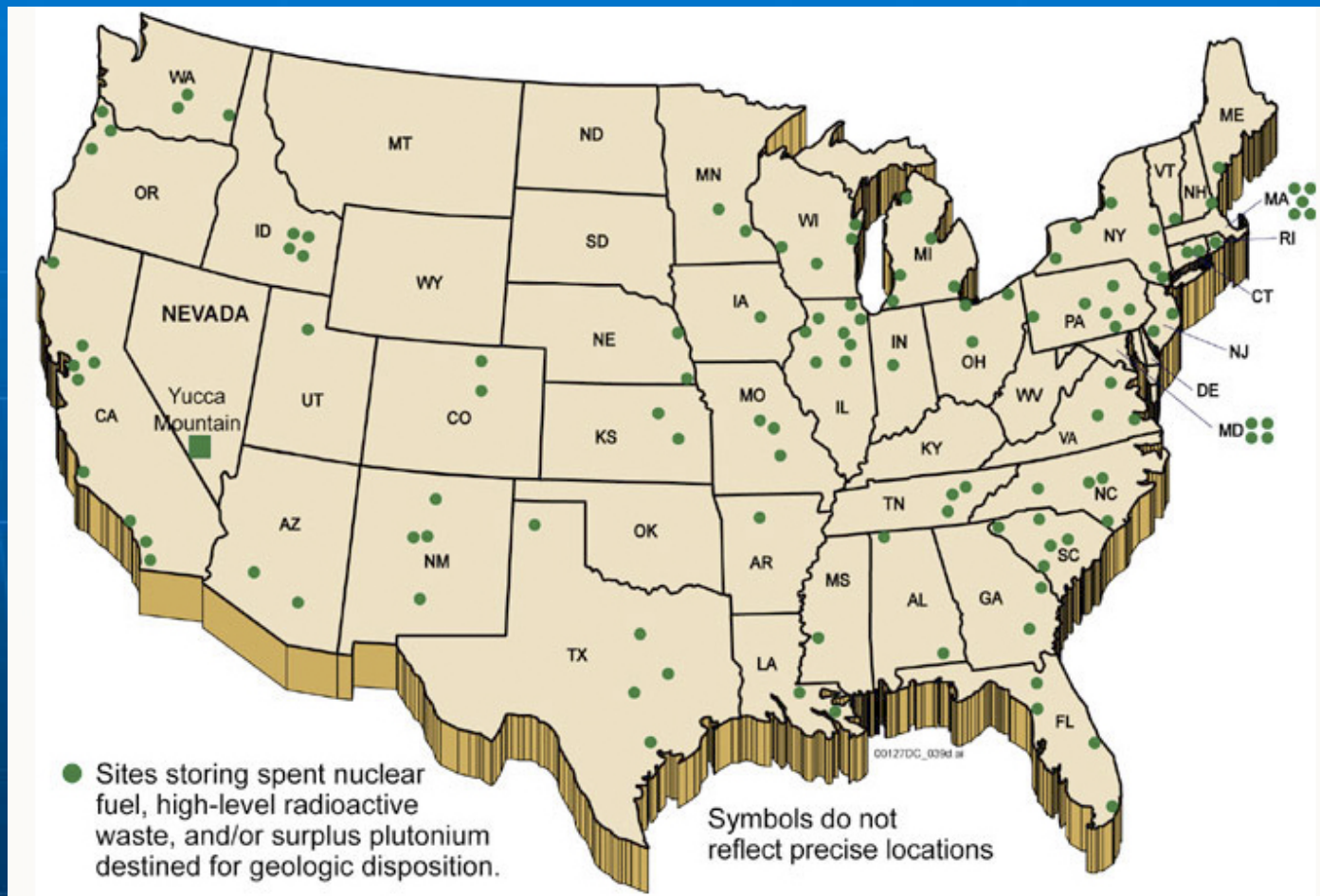


# Impact Assessment Reports

- Property Values
- Gaming & Tourism
- Public Safety Impacts
- Non-Public safety agencies (other government services)
- Environmental Justice (Native Americans)
- Intelligent Transportation Systems
- Transportation Studies
- Commodity Flow study (first since 1996)
- Homeland Security
- State Laws reports
- Environmental Justice (Native American concerns)

# Nuclear Waste Site Locations

Nuclear Waste is currently located in more than 120 locations in 39 states.



Source: Office of Radioactive Waste Management, DOE, web site.

# Potential Transportation Routes





# DOE's Planned Shipments

- **Mostly Truck Scenario**

- 24-year period 52,786
- Shipments/year 2,199
- Shipments/week 42
- Shipments/day 6

- **Mostly Rail Scenario**

- 24-year period  
Total 9,646

*(Source: DOE FEIS)*



# DOE's Accident Estimates

## 24 - Year Shipping Campaign

- Mostly Legal Weight Truck scenario 66 (2.8 per year)
- Mostly Rail scenarios 10 (0.4 per year)

*(Source: DOE FEIS)*



# Public Safety

- Nuclear Waste Policy Act, Section 180(c) Funding Inadequate
- Shipments will have significant impacts on all aspects of public safety.
- Unfunded mandates
- This is very likely the case for Clark County as well as all communities along the transportation route.
- Conducted Public Safety research and compiled studies



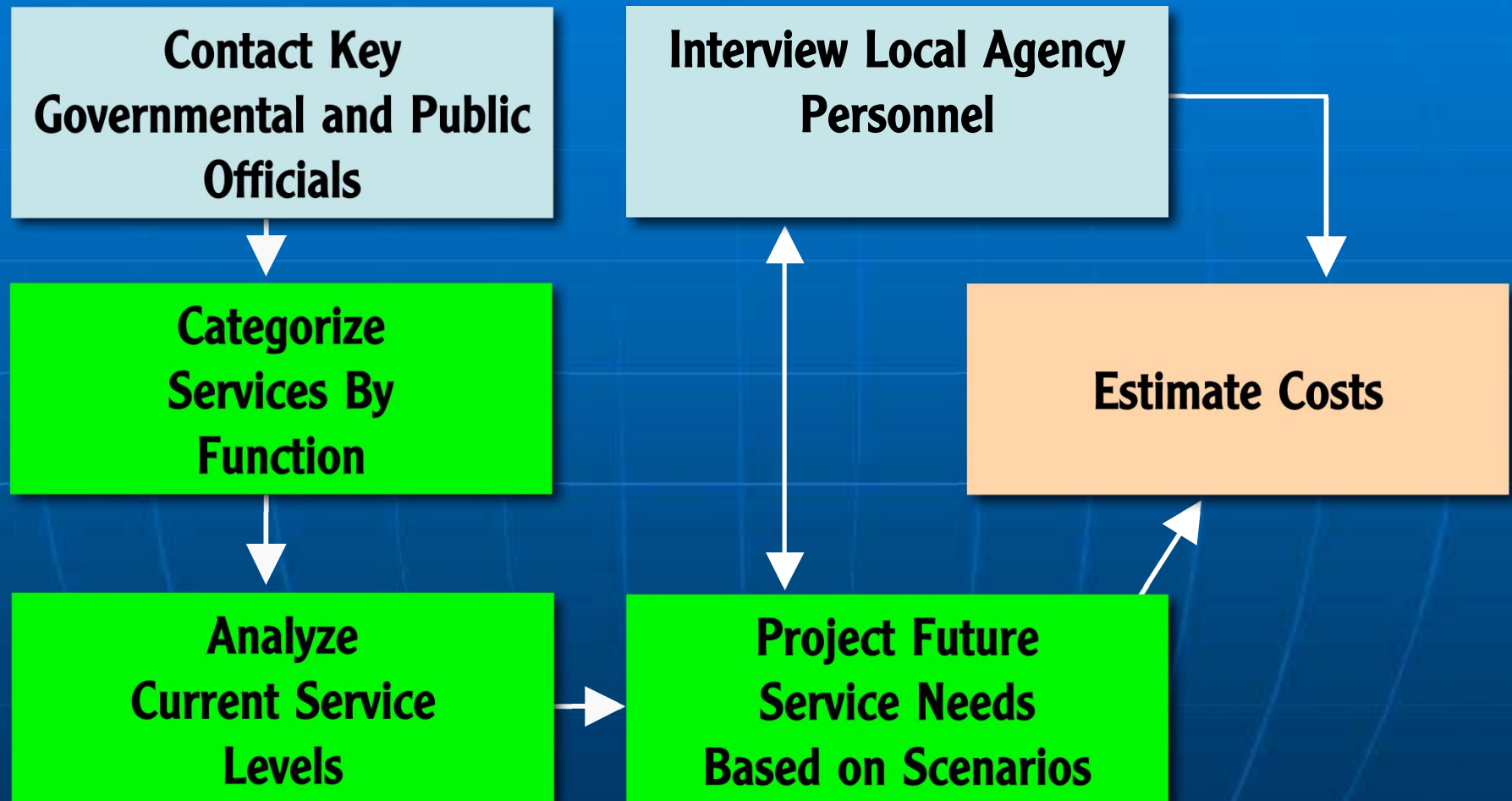


# Key Areas of Concern

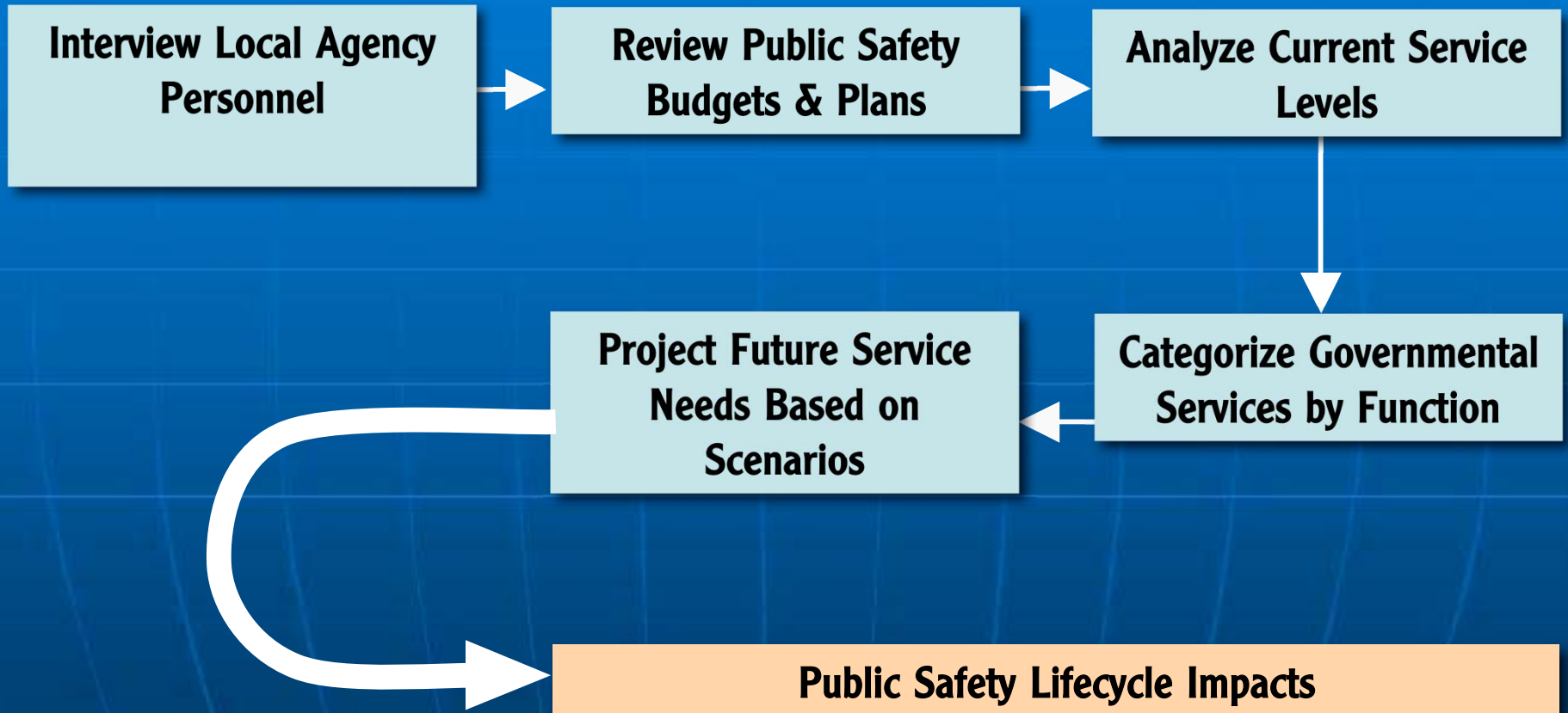
- Accident
- Terrorism
- Training
- Public Awareness
- Facilities and Equipment



# General Approach



# Methodological Approach



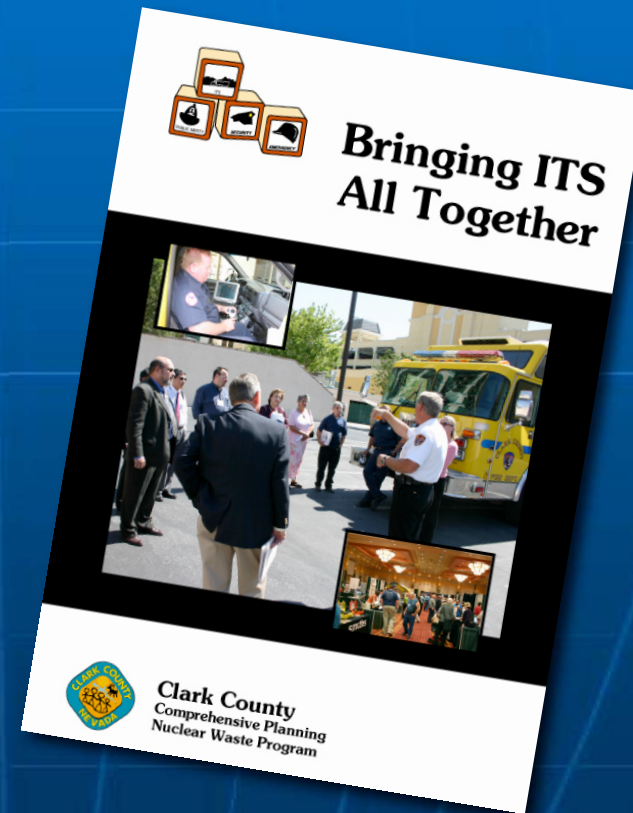


# Yucca Mountain Public Safety Costs

	2010 Shipments Preparation Costs	24-Year Projections
Clark County	\$291,329,612	\$2,553,048,343
Cities	\$93,915,904	\$1,165,983,170
TOTAL	\$385,245,516	\$3,719,031,513

# Resulting Studies from Public Safety Reports

- Intelligent Transportation Systems
- Conference
- ITS Book



# Non-Public Safety Reports

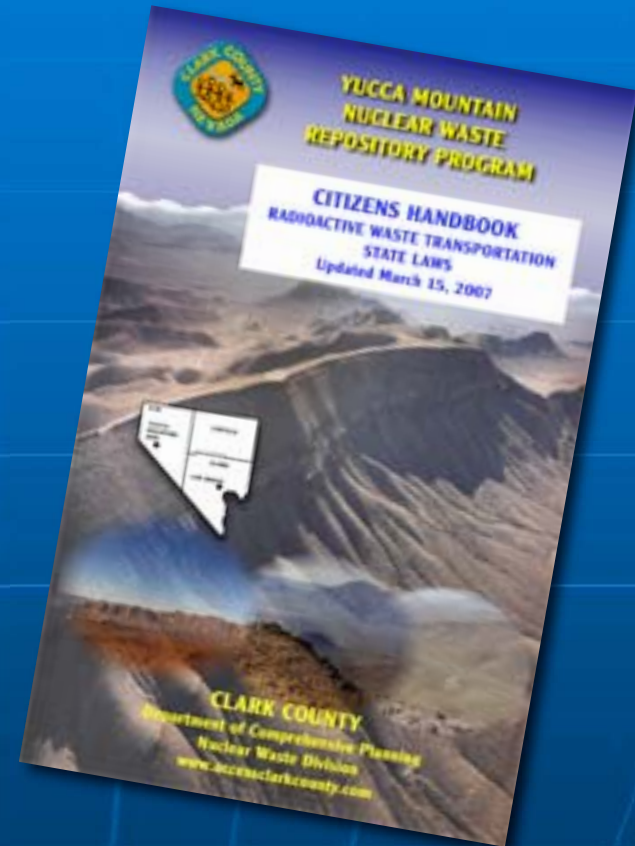
- Health District
- County Hospital
- International Airports
- Administrative Services
  - Office of Emergency Management
- Development Services
- Finance





# State Laws Report

- Publish every 2 years
- Legislative tool



# The Tool

**www.monitoringprogram.com**

## CLARK COUNTY MONITORING PROGRAM



**THE COMMUNITY  
INDICATORS**

## Summary Overview »

Economic »

Fiscal »

**Social »**

Public Health &amp; Safety »

Environmental »



Jurisdiction-level Data »

**Community Survey »**

[About the Program >>](#)

## About The Consultants »



Urban Environmental Research, LLC

## ABOUT THE CLARK COUNTY MONITORING PROGRAM

**CLARK COUNTY**, formed in 1909, is named for William Andrews Clark (1839-1925), who established the railroad that linked Los Angeles with Salt Lake City. Las Vegas was founded in 1905 after Clark's railroad, which made stops here, purchased land for a town site and sold lots by auction, creating downtown Las Vegas near the Las Vegas Springs and Creek.

**The Clark County Monitoring Program** was borne out of two independent efforts. In 2004, Clark County's Nuclear Waste Division and its consultant team implemented the Yucca Mountain Monitoring Program. The Yucca Mountain Monitoring Program was designed in furtherance of the Clark County's Impact Assessment Report (2002). This seminal work on the potential impacts of the transportation and storage of high-level nuclear waste at the Yucca Mountain Nuclear Waste Repository analyzed economic, fiscal, environmental and public safety considerations. The Yucca Mountain Monitoring Program was developed to provide a foundation for on-going policy discussions and a baseline from which economic, fiscal or social changes could be monitored over time.

Concurrently, the Clark County Board of County Commissioners commenced the Community Growth Initiative (the "Initiative"). The Initiative was intended to create a forum to discuss the benefits and challenges that come with being the fastest-growing community in the United States. As part of this process, Commissioners formed a Community Growth Task Force to study growth matters and engage in public debate. The Task Force had its first meeting on March 30, 2004 and submitted its findings to the Board of County Commissioners in April of 2005. As part of its work product, the Task Force also developed the Clark County Community Indicator Website. The site provided a broad cross section of economic, fiscal and social

## SOUTHERN NEVADA INDICATORS

Indicator	Period	Value	Change
Las Vegas Visitor Volume	Sep-06	3,278,884	▲ 3.3%
McCarran Total Passengers	Sep-06	3,778,493	▲ 4.0%
Clark County Taxable Sales	Sep-06	3,068,432,450	▲ 3.5%
Clark County Gross Gaming Revenue	Sep-06	807,847,846	▼ -3.3%
Clark County Taxable Gasoline Gallon	Aug-06	70,217,099	▼ -2.5%

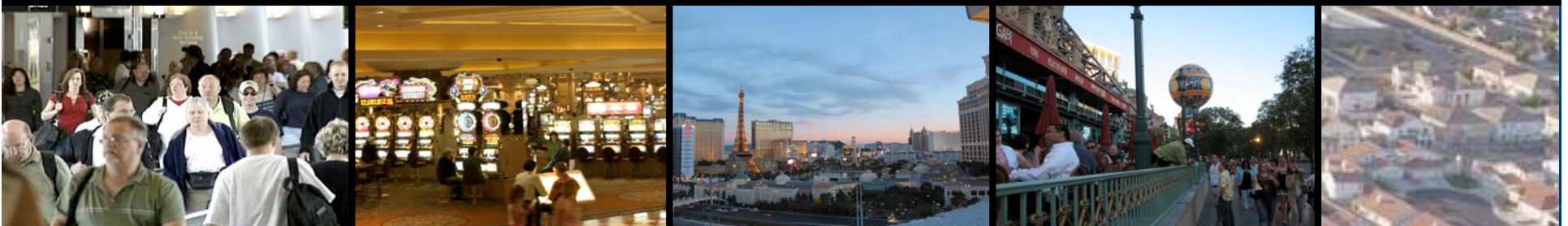
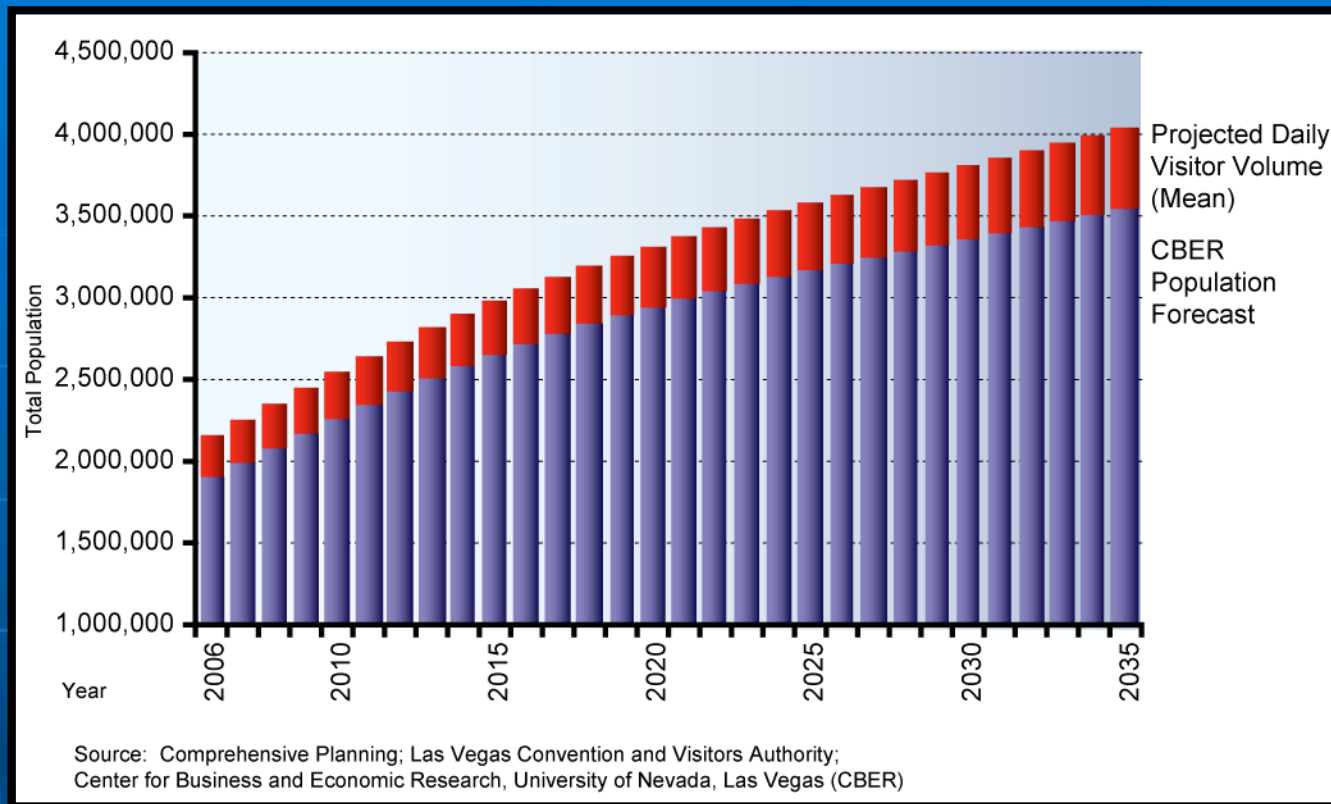


# Urban Community Survey

- **Bi-Annual Survey**
- **Respondents overwhelmingly oppose the Yucca Mountain Project**
- **“Stop Yucca Mountain” was the fifth most important quality of life issue**
- **83%: transportation route near residential housing would have a negative impact on property values**
- **Trust of DOE & the Yucca Mountain project remains a key concern**

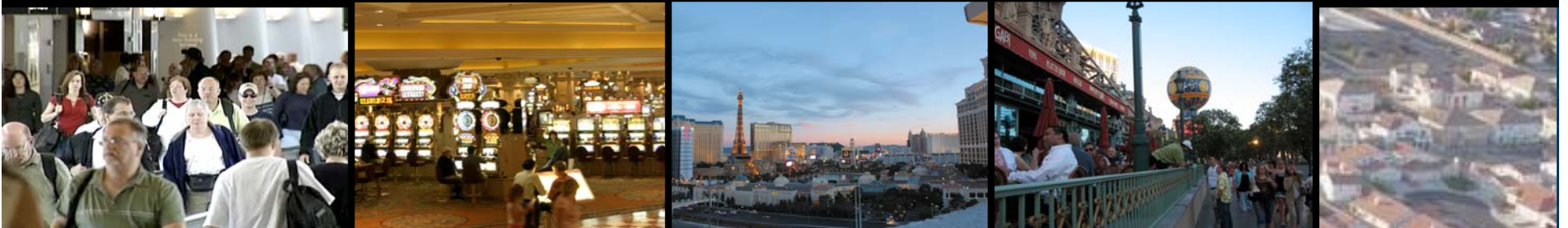


# Tourism is Important to Nevada



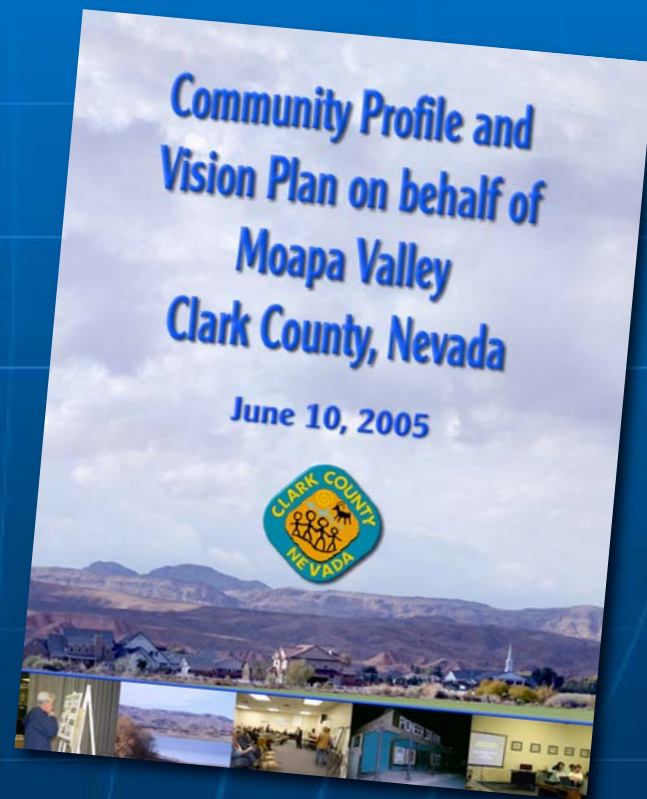
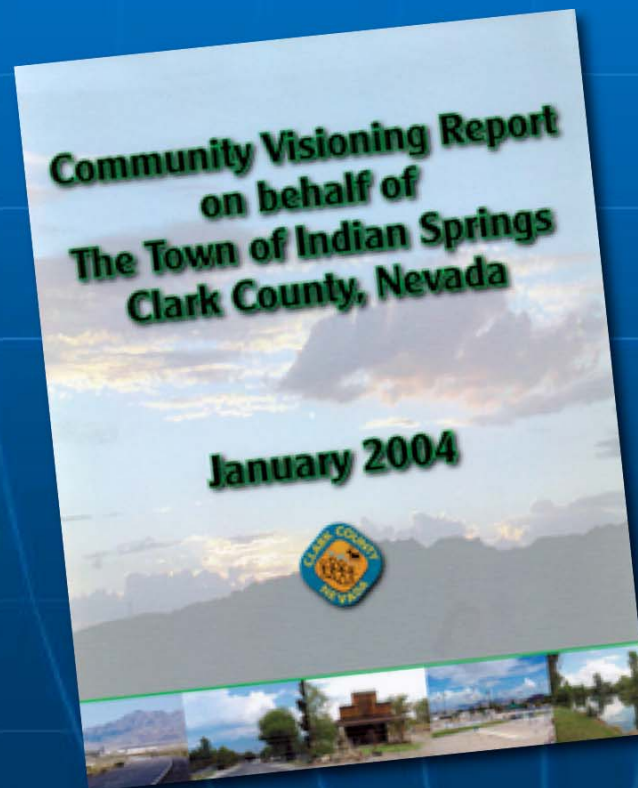
# VISITOR SURVEY

- Nevada's tourism is important to its economy
  - Taxes from tourism are significant in Nevada
  - Residents pay no state income tax



# Rural Community Visioning Studies

- Indian Springs
- Moapa Valley





# Impact Assessment Toolbox

- User friendly
- Tools to assess impacts in any community
- Estimate socioeconomic, infrastructure, environmental impacts

# Conclusion

- **Impact Assessment**
- **Public Safety**
- **Non-Public Safety**
- **State Laws**
- **Community Indicators Monitoring Program**
- **Urban Community Survey**
- **Rural Community Visioning**



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**August 8, 2007**

**Clark County  
Public Outreach**

**Erik Muller, Public Information Officer**



# Outreach Constraints

- **Southern Nevada Demographics**
- **Budget**
- **Local Community Impacts on National Issues**



# Southern Nevada Demographics

- **Population Influx**
- **5,000 New Residents**
- **Transient Nature**





# Budget

**\$ - DOE**

**\$ - Clark County**



# Community Impacts

**Federal**

**State**

**Local**



# Communication Approach

- **Credible**
- **Relevant**
- **Accurate**





# Tools and Tactics



Presentations



Videos/Cable TV

Print



**VIDEO**

# Media





# School Outreach

- **Balanced approach**
- **Fact-based information**
- **On-going material development**



# Tactics

Electronic



The screenshot shows a website titled "Comprehensive Planning NUCLEAR WASTE PROGRAM". It features a large banner for the "Yucca Mountain Podcast by Clark County's Nuclear Waste Program". Below the banner, there is a link to "Yucca Mountain Podcast #11" dated January 9, 2007, and a list of speakers: Clark County Nuclear Waste Program Representatives and Reports, Irene Navis, Planning Manager Clark County Nuclear Waste Division, and Dr. Sheila Correy, Urban Environmental Research. Below this, there is a link to "Yucca Mountain Podcast #10" dated November 15, 2006, and a speaker: Robert Louis, Director of the Nevada Nuclear Projects Office.

Demographics Land Use Plans zoning Nuclear Waste Title 20 Safety

## Comprehensive Planning

### NUCLEAR WASTE PROGRAM

# Yucca Mountain Podcast

by

## Clark County's Nuclear Waste Program

>> Go to the Nuclear Waste Web Site

### [Yucca Mountain Podcast #11](#)

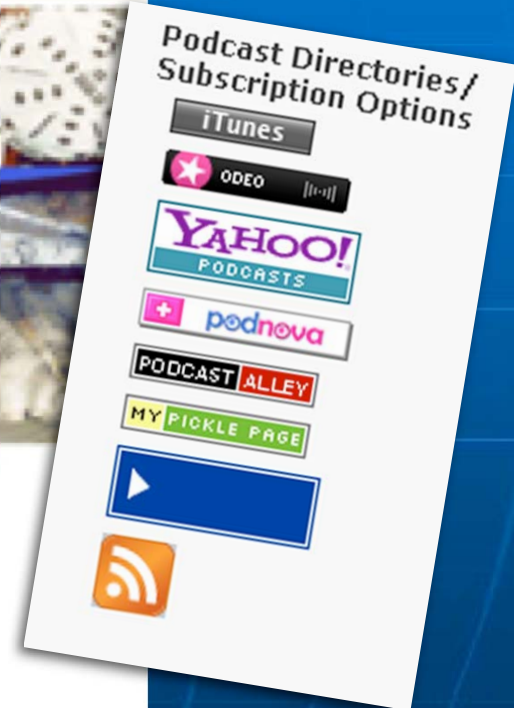
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- Clark County Nuclear Waste Program Representatives and Reports
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- Dr. Sheila Correy, Urban Environmental Research

### [Yucca Mountain Podcast #10](#)

November 15, 2006

- Robert Louis, Director of the Nevada Nuclear Projects Office





# PODCAST

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**Non-music audio broadcast**

**Download audio programs from your computer**

**Independent syndication of your own show on the www**

**Each “episode” features a new topic**





**VIDEO**

# Podcast Results

## Multi-Lingual Podcasts

**1st episode 23 downloads**

**12th episode 5000 downloads**





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